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ABSTRACT

Development of the Individualized Reading Skills and Social Science Program (IRSS) is described. This curriculum begins when most children start to read. If a child cannot read the page, the curriculum provides supplementary listening passages and readiness training assessment. Each child begins at his level of progress. The general structure of the materials is short passages followed by four response multiple choice questions. The social science content includes Site, Route and Boundary Components; Interdependence of Components; Economic, Political and Social Aspects of Components; Environmental Quality of Community; and Comparison of Communities in Different Parts of the World. The first segment of the IRSS program 1970-1971 was pilot-tested and analyzed in 1969-1970. Evaluation of an expanded field test in 1970-1971 indicates an absence of cooperation in administering the program at the classroom level. (DJ)

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Report on An Individualized Reading Skills and Social Science Program in Progress

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The quality and level of performance in learning is determined by factors such as teacher quality, methods and materials of instruction, adequacy of facilities, and motivation. These and other factors enter into the scores on achievement tests determining quality and level of learning of students in different locales, and of various socioeconomic levels, and ability levels. A general discussion of the complex classroom functioning of factors influencing learning will not ensue, since most researchers, public school personnel and psychologists are familiar enough with them to comprehend and evaluate what will follow.

Probably the most immediately manipulative of the factors influencing learning are materials, methods, and facilities, and to some extent teacher quality and motivation. Both language and verbal ability are highly generalizable functions determining achievement in all subject areas. It has been widely recognized that children entering school with adequate readiness as measured by readiness tests (language and numbers) and acquiring subsequent basic skills, progress best throughout school. Lack of or low readiness to enter or continue to progress in school and to acquire basic skills has been generally associated with depressed areas, the socioeconomically disadvantaged, and/or low ability. Depressed areas and disadvantaged youth are where immediate ameliorative action is needed.

Goolsby (1968) has shown that head start subjects trained to listen for details, purposes, organizations, and evaluations followed by structured multiple choice test questioning progressed substantially toward readiness as measured by the Metropolitan Readiness Test (MRT) over an eight-week period. The materials used were in A Curriculum in Listening Achievement (Goolsby, 1969). On the basis of this evidence and subsequent informal evidence at preprimary and primary levels, an intensive effort has been made to develop social science reading materials using the listening curriculum as a model.

The Individualized Reading Skills and Social Science Program (IRSS) segments of which are presently being pilot tested, has features supportive of several basic psychological principles. First, the curriculum begins at a point when most children are expected to start reading the printed page. If a child cannot read the printed page, the curriculum provides supplementary listening passages, readiness training and assessment (to be presently described). Second, each child begins with the materials and procedures of the curriculum at the level where his individual progress has been assessed. These features plus the structure of the materials and psychological orientations give most children an optimal opportunity to learn the skills of reading at a time appropriate for effective utilization in later learning. Third, the desired behavioral outcomes are defined by the structure of the materials so that teachers and students readily understand the objectives of reading skills development and the individualized nature of IRSS.

The general structure of the IRSS material is short passages followed by four-response multiple choice questions. Short passages followed by questions are important for several reasons. First, the student is able

to be more independent and self-directing since there are scorable questions relating directly to each passage. The structured questions for each passage immediately direct the student's attention to the important outcomes of acquiring social science knowledges, skills and understanding and acquiring the skills of reading. The skills of reading are determining details, purposes, organization, and evaluation from reading the passages. The student and teacher together can use the score on each set of questions for each passage to determine progress and make a decision with regard to proceeding to the next passage.

The skills are sequenced as to complexity so that less complex skills are developed first. The less difficult items for each passage are also presented first so that the student does not become discouraged. Also, easy items are strategically placed at frequent intervals. This design encourages response to all the items.

The student and/or the teacher is able to score the questions for a given passage as soon as the student finishes. This allows the student to receive immediate reinforcement (feedback).

The IRSS material is organized by major themes which complement social studies curricula content, in general, at the primary grade level. Learners are provided with reading experiences designed to expand their perception and comprehension of life space.

The content for the passages is based upon the concept of a functional community. A functional community includes those geographic, social, political, and economic components which produce a viable setting for all human interactions.

Site, route, and boundary components are concepts which provide the foundation for the functional community. The program is designed to complement site, route, and boundary experiences of learners and relate them to a conceptual structure. Sites are places which are referents in the learner's

increasingly complex world. The home is one of the first sites a learner becomes aware of during the developmental process. Gradually other sites, for example, the school, grocery store, and park become reference points. During this period, routes become significant for the child. Routes are the linkages between the home and the expanding site perspectives of the learner. Children associate them with trips to the store, to school, and work. Boundaries define the limits within which geographical experiences occur. Property, county, state and international boundaries represent a few which the student comes in contact with as the magnitude of sites and routes increases.

When completed the program will have social science content according to the following areas:

1. Site, Route and Boundary Components
2. Interdependence of Components
3. Economic, Political and Social Aspects of Components
4. Environmental Quality of Community
5. Comparison of Communities in Different Parts of the World

The following passage and questions are a sample of the IRSS materials:

Jerry and Mr. Smith were sitting in City Park. The valley and river were in front of them. Across the valley they saw the heavy trucks. They were moving slowly on the highway. The highway was steep and had many curves. It led from the valley bottom to the ridge top.

"That hill over there is known as Stagecoach Hill," said Mr. Smith. "A long time ago the stagecoach trail between our town and Highland followed that part of the hill. Extra horses were needed to make the pull when the stagecoach was going up the hill. When coming down the driver went very slowly so that there wouldn't be a runaway. Horses are no longer used. The trucks have replaced the stagecoaches. But the name of the hill has remained the same. Everyone still calls it Stagecoach Hill."

1. What is the best title for these paragraphs?
   1) In Old Days
   2) In the Park
   3) The Valley
   4) Stagecoach Hill

2. What did Jerry and Mr. Smith <u>not</u> see across the valley?
   1) A stagecoach
   2) A highway
   3) A hill
   4) A ridge top

3. Where did the highway across Stagecoach Hill lead?
   1) To our town
   2) To Highville
   3) To Highland
   4) To the city

4. Why were extra horses needed to pull the stagecoach up the hill?
   1) The hill was steep.
   2) The hill was muddy.
   3) The stagecoach was very heavy.
   4) The horses were small.

5. Why did the driver go slowly down the hill?
   1) To rest the horses
   2) To make it easy on the riders
   3) To keep from having a runaway
   4) To stop for water

6. What did Jerry and Mr. Smith see between them and Stagecoach Hill?
   1) Heavy trucks
   2) The river
   3) Curves
   4) Trees

7. What was true about the trail up the steep hill for the stagecoach to travel?
   1) It was easy to travel.
   2) It was wide.
   3) It was fast.
   4) It had many curves.

In addition to the social science outcomes, the materials are intended to train students in language development of reading skills as classified and outlined in the Teacher's Manual of the Iowa Tests of Basic Skills according to the categories: details, purposes, organizations, and evaluation.

Pre-reading activities as outlined in Evaluation of Cognitive Development -- Pre-reading Skills (Goolsby, 1969) are designated as areas for concentration in bringing non-readers to "reading threshold." "Reading threshold" for a given pupil is the condition of his having exhibited the behavior outlined on the pre-reading skills inventory and can orally verbalize by reading three six-to-ten word sentences.

All of the materials are designed to be used with no significant changes in classroom procedures. The program is intended to be supplementary to a conventional reading and/or social science program and to be used for two to five hours per week for a regular nine month school year.

The first seven to ten days of use of the program is considered to be a "warm-up" period for both teachers and pupils. During "warm-up" a determination should be made concerning the reading status of each pupil. If a given pupil can not read the first two or three passages with better than fifty percent correct responses to the questions following each passage, he should be placed at a listening station to listen to the passage and questions while attempting to follow along with the written passages in the book. The program is designed to function the same for listening as for reading with the only difference being the mode of presentation, i.e., tape recording in combination with the printed page.

The student meeting the criterion for reading proceeds at his own rate. He locates the passage with the accompanying questions. He is supplied with an answer sheet (See Chart I) for several passages. After reading a passage, he

records and grids the passage number and responds to the questions by marking the answer sheet. He scores his own answer sheet and charts the number correct on the student record sheet in vertical bar graph form (see Chart 2.) He then proceeds to the next passage. During this entire process the teacher serves as a supervisor, adviser, and motivator.

As soon as a student at a listening station (located in each room for each group)meets the criterion of fifty or sixty percent on several successive passages he is placed on regular reading as described above. If the listening activity did not bring him to "threshold" (the condition of his having exhibited the behavior outlined on the pre-reading skills inventory and can orally verbalize by reading three six-to-ten word sentences), an assessment is made of his pre-reading skills by the use of Evaluation of Cognitive Development-Pre-reading Skills (Goolsby, 1969). Treatment to a near perfect criterion on the pre-reading skills is recommended. During the treatment for pre-reading skills, the student should continue some listening activities. There should be no longer than one day during which the student is to receive no treatment in some form (reading or listening) with the individualized program. For educationally handicapped students, some phonics and alphabet training is recommended.

The first segment of the IRSS program, Sites, Routes, and Boundary components, was pilot tested and analyzed in 1969-70. Item analyses of the IRSS passages were made and revision of the materials undertaken.

An expanded field testing of Site, Route, and Boundary Components occurred in 1970-71. Evaluation of this program component is based upon a randomly selected sample of 99 subjects. The randomly selected sample constituted somewhat more than 6000 passages read and scored.

Chart 1

ANSWER SHEET

Steps for the students: (1) Enter the passage number; (2) Read the passage; (3) Mark the answer spaces neatly.

Passage No. _____					Passage No. _____					Passage No. _____					Passage No. _____				
1					1					1					1				
2					2					2					2				
3					3					3					3				
4					4					4					4				
5					5					5					5				
6					6					6					6				
7					7					7					7				
8					8					8					8				
9					9					9					9				
10					10					10					10				
11					11					11					11				
12					12					12					12				
13					13					13					13				
14					14					14					14				
15					15					15					15				
16					16					16					16				
17					17					17					17				
18					18					18					18				

Passage No. _____					Passage No. _____					Passage No. _____					Passage No. _____				
1					1					1					1				
2					2					2					2				
3					3					3					3				
4					4					4					4				
5					5					5					5				
6					6					6					6				
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16					16					16					16				
17					17					17					17				
18					18					18					18				

Make your marks dark and neat. Do <u>not</u> make extra marks. Mark only one answer space for each question. Neatly erase any extra marks. Hand in a neat answer sheet.

Chart 2

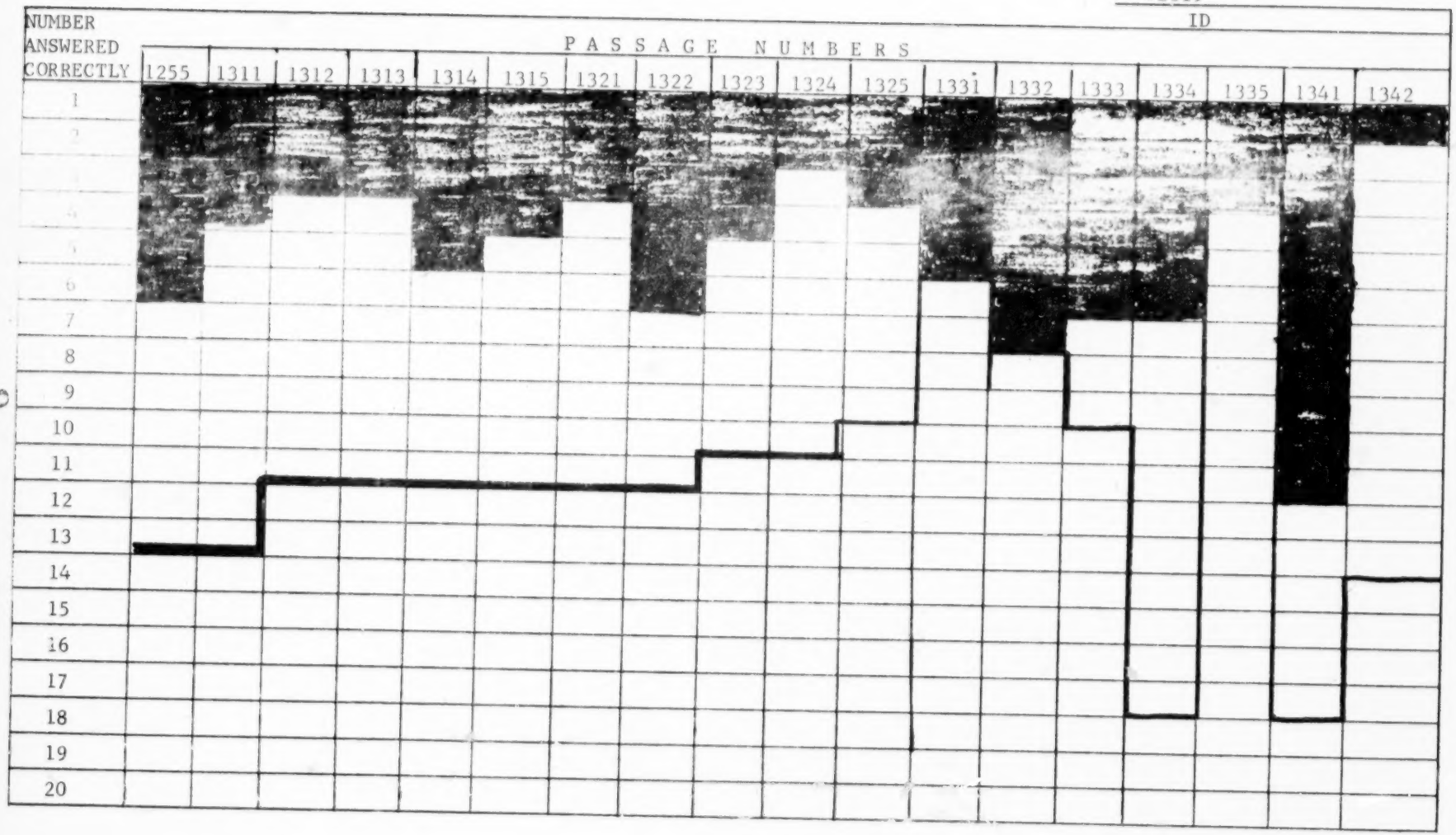
Student Profile Sheet

Tammie Distyan

NAME

02119

ID



The mean proportion of correct responses and standard deviations for the passages was computed. The standard deviation of the proportion of responses correct per passage was consistently about .25. It was anticipated that this variability would reflect the range of reading abilities of students on difficult passages but be reduced considerably on less difficult passages. Such was not the case, probably for reasons discussed hereafter. Also, correlation coefficients between the passage score and Iowa Tests of Basic Skills Reading and Vocabulary and ITBS Maps scores for the subjects in the sample were computed. Those data suggest several conclusions.

Approximately 17 passages had a mean proportion correct score low enough (less than .6) to suggest that a substantial proportion of subjects marked their answers randomly. This result can only lead to the conclusion that in many instances the passage tests were not correctly administered. The program procedure of requiring students to reread passages a second and third time in order to attain a score no less than the 60 percent criterion level was evidently not emphasized by the teachers. No scores below that level should have been recorded. A student not able to attain the criterion score by the third reading was not to be permitted to continue without either listening or individual assistance.

The low means are believed by the authors to result from lack of proper supervision and lack of understanding of directions by the students, especially those in the lower ability groups. This situation was compounded by inadequate teacher monitoring of the student reading profiles, a vital component for evaluation of progress to be used by the teacher.

The relationship between passage scores and scores on the ITBS Reading, Vocabulary, and Maps result in a generally consistent pattern of correspondence. However, two exceptions are evident. First, the relationships were

reduced considerably in the cases where guessing occurred. Second, the relationships increased as the proportion of poorer readers in the sample was reduced. Such reductions occurred as the number of omissions increased. The increased relationships also indicate the reduced instances of guessing expected from better readers.

The lower relationships between scores on map activities in the program and ITBS Reading and Vocabulary is indicative of the independence of language functions involved. These scores are more closely related to performance on the ITBS Maps subtest. The significant difference (p .05) between the experimental and comparison groups on the ITBS Maps subtest is evidence of the favorable map reading effect of the treatment.* Further, the high proportion correct on those activities indicates the relatively small amount of chance marking of responses. A rather high incidence of omissions indicates that a large proportion of students did not complete the Map activities. This occurrence must reflect misdirection of students since much larger proportions of students completed adjacent passage tests. Another cause for omissions is misrecording of passage numbers on the student reading record. (The computational program counted as omissions scores higher than the total number of items on the test for a given passage.) Such occurrences are further evidence that the program was not monitored within the guidelines established.

One final consideration rests with the stage of development of the IRSS program. Certainly, some inadequacies exist in the program which contribute to deficiencies evident from analysis. However, the absence of cooperation in administering the program at the classroom level is most obvious. This conclusion is not attributed to any individual's observations but derives from

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*Although the intent herein is to analyze the systematic development of the IRSS Program, the experimental effects are significant. Year's end reading scores of the experimental group were significantly better (.07) than a comparison group using a basal reading series.

the data reviewed above. Nevertheless, observation by individuals disclosed that quality of cooperation and commitment to experimentally assisting children in learning to read had a considerable range, probably the result of variation in both attitude and ability of classroom personnel.

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